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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,490	07/09/2001	Hidetada Fukushima	010866	4191

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EXAMINER

SALAD, ABDULLAHI ELMI

ART UNIT PAPER NUMBER

2157

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/900,490

**Applicant(s)**

FUKUSHIMA ET AL.

**Examiner**

Salad E. Abdullahi

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-11 and 13-16 is/are allowed.
- 6) ☒ Claim(s) 1-7, 12, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**Response to Amendment**

1. The amendment filed on 5/16/2005 has been received and made of record.
2. Applicant's argument with respect to claims 1-7, and 12 and 17-18 have been fully considered but are moot in view of new grounds of rejection.

***Allowable Subject Matter***

3. Claims 8-10, 11 and 13-16 are allowed.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
6. Claims 1-7, and 12 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poisner U.S. Patent No. 6,842,776 [hereinafter] in view of Gonya U.S. Patent Application Publication No. 20010032109 [hereinafter Gonya].

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As per claims 1, 17 and 18, Poisner discloses a management system of a machine equipped with a driving power source, comprises:

a maintenance management information storage means that stores information about conditions of maintenance on the basis of both usage conditions and operating

conditions for each model of the machine (see col. 3, lines 60-65);

an input means for entering data of the machine's model, the usage conditions, and the operating conditions into the storage means (see col. 3, lines 50-59); and

a control means (i.e., processor) , wherein on the condition that the machine's model, the usage conditions and the operating conditions of the machine have been entered in the storage means through the input means, the control means reads out conditions for maintenance that correspond to the machine's model (i.e., device identifier), the usage conditions, and the operating conditions, respectively, from the storage means to predict information about a recommendation for maintenance management at a predetermined operation time of the machine with reference to the conditions of maintenance(see col. 3, lines 66 to col. 4, lines 24).

Poisner does not explicitly disclose: operating condition includes environment condition

Gonya discloses an analogous system for predicting a maintenance schedule of a product including the step of wherein the operating condition includes environment condition (see paragraph 0021 and 0029). Therefore, it would have been obvious to one having ordinary skill in the art at the of the invention to incorporate the teaching of Gonya such as determining operating condition of a product wherein the operating condition includes environment condition, because considering environment condition a

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product operates is good variable of predicting or scheduling a preventive maintenance of the product.

Furthermore, Poisner is silent a display means.

However, Gonya discloses a management and monitoring system for equipment including a display means for displaying maintenance recommendation to user (see figs 13a-13g). Therefore, it would have been obvious to one having ordinary skill in the art at the of the invention to incorporate the teaching of Gonya such as the display means into the system of Poisner such that the maintenance recommendation can be displayed to the user to ensure that proper and accurate data are obtained and provided to the user.

As per claim 2, Poisner discloses a management system of a machine as claimed in claim 1, further comprising: a state-measuring means to measure the state of the machine and to produce information about the results of measurement, wherein the control means optimizes the information about a recommendation for maintenance management with reference to the information about the results of measurement from the state-measuring means (see col. 1, line 65 to col. 2, line 10).

As per claim 3, Poisner discloses a management system of a machine as claimed in claim 2, wherein the control means includes a different part determination means that estimates the unusual part of the machine on the basis of the information about the results of the above measurement provided from the state-measuring means and determines whether there is a need of replacing the part with new one (see col. 4, lines

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25-41).

As per claim 4, Poisner discloses a management system of a machine as claimed in claim 2, wherein the control means includes a means for reconsidering a part-replacing condition among the conditions for maintenance, which are stored in the storage means for storing the maintenance management information with reference to the predicted maintenance management recommendation information and the maintenance conditions stored in the maintenance management information storage means (see col. 4, lines 25-41).

As per claim 5, the claim includes features discussed above with respect to claim 1, further reciting the management system of a machine equipped with a driving power source, comprises: a client terminal (i.e., device 206) and a server (central computer 204) connected to the client terminal through a network (220) (see fig. 2 and col. 2, lines 63 to col. 3, line 30).

As per claim 6, Poisner discloses a management system of a machine as claimed in claim 5, wherein the server distributes the predicted maintenance management recommendation information to the client terminal connected to the server through the network (see col. 4, lines 25-41).

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7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Poisner as applied to claim 1 above, and further in view of Bjornson U.S. Patent No. 6,728,660.

As per claim 7, Poisner discloses substantial features of the claimed invention as discussed above with respect to claim 6, including a management system of a machine as discussed in claim 6, wherein the server executes the predicted maintenance management recommendation information under some conditions.

Poisner is silent regarding: the server includes a means for representing the contents of cost estimation on the display means with respect to each of these conditions.

Bjornson discloses an equipment maintenance computer system including a means for representing the contents of cost estimation on the display means with respect to each of these conditions (i.e., predicting life cycle costs associated with a piece of equipment) (see fig. 6, col. 7, lines 29-50, and col. 13, lines 14-27). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teaching of Bjornson into the system of Poisner to allow recommended maintenance or repairs to be scheduled more intelligently and cost effectively.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Salad E Abdullahi whose telephone number is 571-272-4009. The examiner can normally be reached on 8:30 - 5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Abdullahi Salad  
Primary Examiner  
8/6/2005